SEALSYSTEMS
THE DIGITAL PAPER FACTORY

PDF Checker

User Manual

Version 2.1.1

2009-04-08

SEAL Systems

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1 Introduction

This documentation describes the installation and the usage of PDF Checker. purpose

It is intended for use by users who want to use PDF Checker. target group

The configuration of PDF Checker is described in [PDFCHECKER_TEC]. Reference

This chapter deals with the following topics: in this chapter

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PDF

standard format

Within the last few years, PDF has been increasingly established as a standard format for exchanging digital documents in and between companies. The range of PDF files reaches from digital forms and interactive catalogues to digital artworks.

advantages

PDF can be used universally for various document types and purposes. This is one of the most important advantages of PDF compared to other document formats.

problems

But in practice, the great flexibility and the versatile application of PDF also result in a wide variety of PDF files generated in different ways.

For example, fonts might be displayed very differently depending on the PDF file using the fonts installed on the system or using the fonts embedded in the PDF file. If the fonts are embedded, the PDF file is displayed identically on every system. If the system fonts are used, some characters probably cannot be displayed if the character is not available in the font or the font is not available on the system.

PDF/A

PDF/A standard

The PDF/A standardization group was founded in order to specify additional requirements for PDF files suitable for long-term preservation. This group worked out an ISO standard (ISO/DIS 19005-1) which specifies the require--ments for PDF files suitable for long-term preservation.

intentions

Important intentions of the PDF/A standard are:

- Availability and accessibility of the documents throughout several technology generations
- Securing a constant layout
- Clear conventions concerning the structure, the semantic information and the representation of text (to allow the document contents to be evaluated automatically further on)
- Promotion of PDF/A-conform products such as readers, converters or validators

This will be achieved by specifying functions and properties of the PDF format definition more precisely or by prescribing them as mandatory while other elements and functions that are problematic for the preservation are restricted or completely excluded. This means that PDF/A does not specify new functionality but reduces the existing PDF basic functionality in a reasonable way. PDF/A-conform files always are conform to the basic PDF format definition by Adobe.

level

The PDF/A standard specifies two levels of conformity. Level A contains all rules of the PDF/A standard, level B contains all rules that are important for the representation. Relating to the PDF/A standard, these are all paragraphs except 6.3.8 and 6.8.

PDF Checker

check

The command line program PDF Checker by SEAL Systems checks if a PDF file complies with the rules specified in a configuration file. For example you check if a PDF file is suitable for long-term preservation and this way avoid that your archive is possibly unnoticed filled with data which can not be reproduced correctly later on.

Reference

For the interpretation of the result and the configuration of PDF Checker, knowledge of both the PDF/A standard (see [ISO19005-1]) and the PDF format definition by Adobe (see [PDF_REF]) are required.

PDF/A-Norm and PDF Checker

The requirements specified in the PDF/A standard (ISO 19005-1) define a subset of the functionality in the PDF version 1.4. Restriction are made concerning both the syntax and the semantics. Also, requirements concerning the contents (metadata) are made in order to provide the documents' context and history.

ISO 19005-1

The checks available in PDF Checker are oriented around the requirements specified in the PDF/A standard. However, they are also based on practical experience gained from processing PDF files.

PDF Checker

This means that some checks concerning the syntax or contents are not implemented. This includes the detailed check of the syntactical restrictions of the PDF reference.

restriction

Conventions in this Documentation

path specification

The path information given in this documentation is relative to the installation directory of PDF Checker.

typography

The following table lists the typographical conventions employed in this documentation for file names, paths, variables, etc.

Typographical Convention	Meaning
Courier	File names, paths, commands, key terms, special values, short scripts and examples
Courier italic	Parameters; variables that must be replaced by current values
Courier small	More extensive scripts and examples

Overview of Contents

The documentation deals with the following topics: topics

Chapter 2, *Overview*, page 8, briefly shows the functionality of PDF Checker.

Chapter 3, *Installation*, page 9, explains how to install PDF Checker on your system and lists the requirements for the installation.

Chapter 4, *Usage*, page 20, describes how to call PDF Checker and which results are provided by PDF Checker.

Chapter 5, *Configured Checks and Sections*, page 30, provides a description of the checks and the sections that can be executed separately.

For an easier overview, a terminology list, bibliog-raphy, and index are included at the end of the documentation. lists

2 Overview

contents

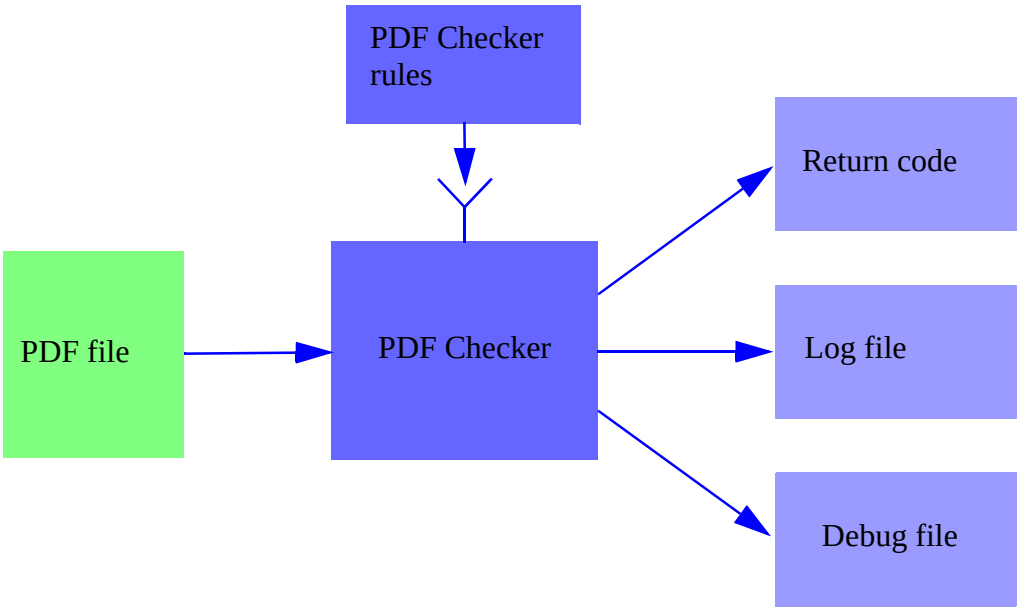
This chapter provides you with a short overview of the functionality of PDF Checker.

rules

The command line program PDF Checker by SEAL Systems checks if a PDF files complies with specified rules. You configure these rules in a configuration file.

result

As a result of the check, PDF Checker returns a return code, a log file listing all distinctive features found by PDF Checker when passing the check routines and, if desired, a debug file containing information about the program run and details of the found features.



3 Installation

This chapter describes the installation of PDF Checker:. in this chapter

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3.1 Requirement

operating system

PDF Checker is available for the following operating systems:

- Windows XP, 2003 Server, Vista
- Linux SLES 9 (GLIBC v2.1.x is required)
- HP-UX release 11.0
- Sun Solaris release 2.6 or higher

3.2 Installation of PDF Checker

Windows

On Windows, normally PDF Checker is installed using the MSI package for PDF Longlife Suite.

UNIX

On UNIX, you copy PDF Checker manually into the installation directory.

calling script

For executing PDF Checker, some environment variables have to be set. In a PLOSSYS netdome environment on Windows this is already the case. Otherwise, you can create a calling script by executing the installation script. In the calling script the required environment variables are set.

Caution: Directories

The `$PLSROOT/tools/adobe/fonts` and `$PLSROOT/tools/adobe/cmap` directories must not be write-protected because PDF Checker will create the `AdobeFont11.lst` file in these directories when being called for the first time.

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Install the MSI Package

instructions

This is how you install PDF Checker using the MSI package for PDF Longlife Suite:

Step	Action
1	Double-click `pdflonglife.msi` or enter the following command into the command line: `msiexec /i pdflonglife.msi`
2	Follow the instructions of the installation program.

result

After the installation, all files and directories are available in the specified installation directory and in the user-specific directories of the Windows system.

Copy PDF Checker Manually

This is how you copy PDF Checker manually: instructions

Step	Action
1	Copy the directories and files that belong to the installation (see *Directory Structure*, page 16), into any target directory. In a PLOSSYS netdome environment, copy the directories and files into the directory that the `PLSROOT` environment variable refers to. Usually, this is the home directory of the `plossys` user.

After the installation, all files and directories are available in the target directory. result

Create the Calling Script

purpose

The calling script sets all environment variables required for the call of PDF Checker. The calling script is only necessary, if you do not run PDF Checker in a PLOSSYS netdome environment on Windows.

instructions

This is how you create the calling script for PDF Checker:

Step	Action
1	Change to the installation directory of PDF Checker.

2	Start the installation script in the command line on Windows or in the shell on UNIX:
	Windows:
	`tools\inst.pdfchecker.bat`
	UNIX:
	`tools/inst.pdfchecker`

result

The installation script creates the calling script `tools\bin_os\pdfchecker.bat` on Windows or `tools/bin_os/pdfchecker.sh` on UNIX.

Hint

In order to set additional environment variables such as `PLS_LANG` for the PDF Checker call, enter these into the calling script.

3.3 Uninstallation of PDF Checker

If PDF Checker was installed on your system using the MSI package for PDF Longlife Suite, remove it by using the software management in Windows.

Caution: Directories

The `$PLSROOT/tools/adobe/fonts` and `$PLSROOT/tools/adobe/cmap` directories are not removed because PDF Checker creates the `AdobeFont11.lst` file in these directories when being called for the first time.

If PDF Checker was copied manually, remove all files and directories that belong to the PDF Checker installation from your system.

3.4 Directory Structure

installation mode

The directory structure of the installation of PDF Checker differs depending on if the program has been installed using the `pdflonglife.msi` MSI package or not.

without MSI package

If you did not use the `pdflonglife.msi` MSI package, the following directories and files belong to the installation:

Directory/File	Description
doku	Documentations directory
`pdfchecker_tec_de.pdf`	German System Description
pdfchecker_tec_en.pdf	English System Description
pdfchecker_usr_de.pdf	German User Manual
pdfchecker_usr_en.pdf	English User Manual
`install/pdflonglife`	Directory containing the installation program
pdflonglife.msi	MSI package for Windows
`tools`	Directory containing program parts
inst.pdfchecker.bat (Windows)	Installation script for Windows
inst.pdfchecker (UNIX)	Installation script for UNIX
`tools/adobe/cmap`	Directory containing CMap files for the fonts
*.cmap	CMap files
`AdobeFont11.lst`	File containing font information (creates PDF Checker when called for the first time)
`tools/adobe/font`	Directory containing definition files for the fonts
*.mmm	mmm files
*.otf	otf files
*.pfb	pfb files
*.pfm	pfm files
`AdobeFont11.lst`	File containing font information (creates PDF Checker when called for the first time)

To be continued

Directory Structure, Continuation

.....

Directory/File	Description
`tools/bin_os`	Directory containing the executables and libraries
`DL81ACE.dll` (Windows) `DL81AdobeXMP.dll` (Windows) `DL81AGM.dll` (Windows) `DL81ARE.dll` (Windows) `DL81AXE8SharedExpat.dll` (Windows) `DL81BIB.dll` (Windows) `DL81BIBUtils.dll` (Windows) `DL81CoolType.dll` (Windows) `DL81JP2KLib.dll` (Windows) `DL81pdfl.dll` (Windows)	Files of Adobe PDF Library for Windows
`libDL81ACE.so` (Linux, Solaris) `libDL81AdobeXMP.so` (Linux, Solaris) `libDL81ARE.so` (Linux, Solaris) `libDL81AGM.so` (Linux, Solaris) `libDL81AXE8SharedExpat.so` (Linux, Solaris) `libDL81BIB.so` (Linux, Solaris) `libDL81BIBUtils.so` (Linux, Solaris) `libDL81CoolType.so` (Linux, Solaris) `libDL81JP2KLib.so` (Linux, Solaris) `libDL81pdfl.so` (Linux, Solaris)	Files of Adobe PDF Library for Linux and Solaris
`libDL81ACE.sl` (HP-UX) `libDL81AdobeXMP.sl` (HP-UX) `libDL81ARE.sl` (HP-UX) `libDL81AXE8SharedExpat.sl` (HP-UX) `libDL81AGM.sl` (HP-UX) `libDL81BIB.sl` (HP-UX) `libDL81BIBUtils.sl` (HP-UX) `libDL81CoolType.sl` (HP-UX) `libDL81JP2K.sl` (HP-UX) `libDL81pdfl.sl` (HP-UX)	Files of Adobe PDF Library for HP-UX
pdfchecker (UNIX)	PDF Checker program for UNIX
pdfchecker.bat (Windows)	Calling script for Windows (is created by `inst.pdfchecker.bat`)
pdfchecker.exe (Windows)	PDF Checker program for Windows
pdfchecker.sh (UNIX)	Calling script for UNIX (is created by `inst.pdfchecker`)

..... *To be continued*

Directory Structure, Continuation

Directory/File	Description
`tools/convcfg/pdflls`	Directory containing configuration files
pdfcheck.ini	Checks for the PDF/A standard etc.
pdfcheck_customer.cfg	Customer-specific checks
pdfchecker.cfg	Global configuration file
`tools/language/pdflls`	Directory containing language files
de.cfg	German texts of the messages
en.cfg	English texts of the messages
fr.cfg	French texts of the messages

3.5 Environment Variables

PDF Checker requires or considers the following environment variables:

Environment Variable	Meaning
LD_LIBRARY_PATH	specifies the directory containing the libraries (`$PLSROOT/tools/bin_os`). This environment variable must be set on Linux and Solaris.
PDFLLS_CONFIG_DIR	specifies the directory with the `$PLS_APPLICATION` subdirectory where PDF Checker searches for the configuration files and the color profiles. The specification with the `-i` parameter and the current directory takes priority to `PDFLLS_CONFIG_DIR`. Default: `$PLSTOOLS/convcfg`
PLS_APPLICATION	specifies the name of the application. Default: `pdflls`
PLS_LANG	specifies the language for the PDF Checker output. Default: `en`
PLS_LANG_FILE	specifies the language file explicitly. Default: `$PLSTOOLS/language/$PLSAPPLICATION/$PLS_LANG.cfg`
PLSROOT	specifies the installation directory of PDF Checker. This environment variable must be set.
PLSTOOLS	specifies the directory with the `convcfg` subdirectory for the configuration files and the `language` subdirectory for the language files. Default: `$PLSROOT/tools`
PSRESOURCEPATH	specifies the directories where the Adobe PDF Library searches for fonts and CMaps. Several directories are separated by '`;`' on Windows and by '`:`' on UNIX. Default: `$PLSROOT/tools/adobe/font;$PLSROOT/tools/adobe/cmap`
SH_LIBPATH	specifies the directory containing the libraries (`$PLSROOT/tools/bin_os`). This environment variable must be set on HP-UX.

4 Usage

in this chapter

This chapter describes the usage of PDF Checker:

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4.1 Call of PDF Checker

This is how you call PDF Checker: instructions

```
pdfchecker[.exe] -f pdffile [parameter]
```

If the environment variables are not at all or not compatibly set in the environment in which you call PDF Checker, call PDF Checker by using the calling script: calling script

Windows:

```
pdfchecker.bat -f pdffile [parameter]
```

UNIX:

```
pdfchecker.sh -f pdffile [parameter]
```


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Hint

The file name of the PDF file applies the convention for file names valid on the correspondent operating systems.

Hint

On Windows, the graphical user interface, PDF Longlife, is available. This calls PDF Checker.

Drag and drop the PDF file to be checked on the program icon or open the PDF file with `File` → `Open` in the graphical user interface.

Parameters

The following table lists alphabetically the supported parameters and their meanings:

Parameter	Meaning
`-c` *`cfgfile`*	specifies the name of the configuration file containing the rules for the check. Default: `pdfchecker.cfg` in the current directory and `$PDFLLS_CONFIG_DIR/pdflls`
`-d` *`debuglevel`*	specifies the level of the debug messages that PDF Checker writes into the debug file. (Values for *`debuglevel`* see*Debug File*, page 27) Default: `2`
`-f` *`pdffile`*	specifies the name of the PDF file to be checked. This parameter is mandatory.
`-h`	provides a summary of the supported parameters.
`-i` *`cfgdir`*	specifies the directory containing more included configuration files. Default: The current directory and `$PDFLLS_CONFIG_DIR/pdflls`.
`-l` *`debugfile`*	specifies the name of the debug file into that PDF Checker writes details of the program run and of the checks. Default: `pdfchecker.log` in the current directory
`-n` *`section`*	specifies the name of a single section containing the checks to be executed. (Values for *`section`* see *Configured Checks and Sections*, page 30) Default: `PDF`
`-p` *`logfile`*	specifies the name of the log file into that PDF Checker writes the results of the checks. Default: *`pdffile`*`.log` in the directory of the PDF file *`pdffile`* to be checked

Examples of PDF Checker Calls

Example

defaults

```
pdfchecker -f test.pdf
```

PDF Checker checks if the `test.pdf` file is conform to the default rules, creates the `test.pdf.log` log file in the same directory where the `test.pdf` file is located and writes messages of debug level 2 into the `pdfchecker.log` debug file in the current directory.

log and debug file

```
pdfchecker -f test.pdf -p $HOME/pdfchecker_test.log -l $TMP/pdfcheck-er.dbg -d 5
```

PDF Checker checks if the `test.pdf` file is conform to the default rules, creates the `pdfchecker_test.log` log file in the `$HOME` directory and writes messages of debug level 5 into the `pdfchecker.dbg` debug file in the `$TMP` directory.

single check

```
pdfchecker -f test.pdf -n MetadataUsedCheck
```

PDF Checker executes the `MetadataUsedCheck` check for the `test.pdf` file, creates the `test.pdf.log` log file in the same directory where the `test.pdf` file is located and writes messages of debug level 2 into the `pdfchecker.log` debug file in the current directory.

4.2 Return Code

error or check result

After processing a PDF file, PDF Checker returns either a value that indicates an error during execution of the program or a value that results from the priorities of the executed check routines. In the second case, PDF Checker returns the highest priority of all executed check routines for that a distinctive feature was found in the PDF file.

return code

The following table lists the values returned by PDF Checker and their meanings:

Return Code	Meaning
`0`	The PDF file complies with the rules specified in the configuration file, this means PDF Checker did not find any distinctive feature during the correspondent checks.
`1`	The check of the PDF file ended with a warning, this means PDF Checker found at least one distinctive feature when passing a check with priority `Warning`.
`2`	The check of the PDF file ended with an error, this means PDF Checker found at least one distinctive feature when passing a check with priority `Error`.
`3`	The check of the PDF file ended with a fatal error, this means PDF Checker found at least one distinctive feature when passing a check with priority `FatalError`.
`4`	The input file can not be processed.
`5`	An error occurred while running the program.
`6`	The priority of a check is unknown.
`7`	The level of a check is unknown.
`8`	A check is deactivated.
`9`	The PDF file is protected by an open password and can not be checked.
`10`	An error occurred while parsing the configuration file.
`11`	A parameter is missing or incorrect.
`12`	A file can not be accessed.
`13`	An error occurred while creating the log file.
`14`	The configuration file can not be accessed.

4.3 Log File

PDF Checker writes the results of checking a PDF file into the log file. The log file's format is XML.

By default, PDF Checker creates the log file in the same directory where the PDF file to be checked is located. The name of the log file is the name of the PDF file and the `.log` extension. For example, the log file for `test.pdf` will be `test.pdf.log` by default.

default

With the `-p` parameter, you specify another directory and another name.

explicit specification

PDF Checker does not create directories. Therefore, specify an existent directory here.

Caution: Directory

The language for the output messages is specified in the environment variable `PLS_LANG`.

language

For information about how to configure the format of the messages in the log file and the messages output by the checks, refer to [PDFCHECKER_TEC].

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Example of a Log File

Example

Extract of a log file:

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<DocumentTask Document="T:\keep\testfiles\pdf\pdf_XXL_1.pdf">

  <Task Code="2" Name="PDF" Result="Error" Type="document">
    <Producer Version="2.1.0.5">PDF Checker</Producer>
    <DateTime>2008-10-14T15:55:34</DateTime>
    <Task Code="2" Name="PDF" Result="Error">
      <Description></Description>
      <Task Code="2" Name="PDFA1BChecks" Result="Error">
        <Description></Description>
        <Task Code="0" Name="FontCheck" Result="Ok">
          <Task Code="0" Name="FontEmbedCheck" Result="Ok" Type="page"/>
          <Task Code="0" Name="FontRestrictionCheck" Result="Ok" Type="page"/>
          <Task Code="0" Name="SymbolicFontCheck" Result="Ok" Type="page"/>
          <Task Code="0" Name="FontCMapCheck" Result="Ok" Type="page"/>
          <Task Code="0" Name="FontSubsetCheck" Result="Ok" Type="page"/>
          <Task Code="0" Name="FontGIDMapCheck" Result="Ok" Type="page"/>
          <Task Code="0" Name="Type0SystemInfoCheck" Result="Ok" Type="page"/>
          <Task Code="0" Name="FontCanEmbedCheck" Result="Ok" Type="page"/>
          </Task>
        <Task Code="0" Name="WordCheck" Result="Ok">
         <Task Code="0" Name="WordEncodingMissingCheck" Result="Ok" Type="page"/>
          </Task>
.
.
.
<Task Code="0" Name="ElementCheck" Result="Ok" Type="page"/>
        <Task Code="0" Name="GraphicStateCheck" Result="Ok">
          <Task Code="0" Name="GraphicStateTransferFunctionCheck" Result="Ok"
Type="page"/>
          <Task Code="0" Name="GraphicStateTransferFunctionCheck1" Result="Ok"
Type="page"/>
          <Task Code="0" Name="GraphicStateTransparencyCheck" Result="Ok"
Ty-pe="page"/>
        <Task Code="0" Name="GraphicStateRenderingCheck" Result="Ok" Type="page"/
>
          </Task>
        <Task Code="0" Name="SecurityCheck" Result="Ok" Type="page"/>
        </Task>
      </Task>
    </Task>

  <Summary>
    <Producer>PDF Checker</Producer>
    <Version>2.1.0.5</Version>
    <Result Code="2">Error</Result>
    <DateTime>2008-10-14T15:55:34</DateTime>
  </Summary>

  <DocumentInfo>
    <Author>John Smith</Author>
    <CreationDate>D:20020108131949</CreationDate>
    <Creator>pdftestfiles Version 1.3</Creator>
    <Keywords>Testplot</Keywords>
    <ModDate></ModDate>
    <NumPages>1</NumPages>
    <PDFVersion>1.1</PDFVersion>
    <Producer>GRIBS-GKS - SEAL Systems</Producer>
    <Subject>Standard Test for PLOSSYS</Subject>
    <Title>PDF Testplot</Title>
  </DocumentInfo>

</DocumentTask>
```

4.4 Debug File

PDF Checker writes information about the program run and details of the checks into the debug file. This file is optional.

PDF Checker creates the debug file by default in the current directory. The name of the debug file is `pdfchecker.log`.

default

With the `-l` parameter, you specify another directory and another name.

explicit specification

Caution: Directory

PDF Checker does not create directories. Therefore, specify an existent directory here.

Hint

In order to prevent PDF Checker from writing a debug file, specify `-l /dev/null` on UNIX and `-l NUL` on Windows when calling PDF Checker!

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Debug Level and Message Format

debug level

With the `-d` parameter, you specify the level of output messages. The following table lists the values available for the `-d` parameter.

Level	Debug Level	Type
`0`	Error messages	`[E]`
`1`	Additional warnings	+ `[W]`
`2`	Additional start and stop messages from PDF Checker and the check result (this is default)	+ `[R]`
`3`	Additional passed parameters and which page was checked with which result	+ `[I]`
`4`	Additional single determined values which are helpful when searching errors and are interesting for the user	+ `[D]`
`5`	Additional parameters from the configuration file and the start and stop message and result of each check	+ `[T]`

line format

A line in the debug file first shows the date and time. With this, you are able to see how long a complete run or single section lasted.

PID

After that, the PID (Process ID) that was assigned to a PDF Checker run is output in brackets.

message type

Next the type of the message is output in brackets. The following table lists the possible values:

Type	Meaning
`R`	Start or stop message, result
`W`	Warning
`E`	Error
`I`	Info
`D`	Detail
`T`	Trace

Example of a Debug File

Extract of a debug file using debug level 2:

Example

```
2008-10-14T15:55:34 [520] [R] <PDF Checker 2.1.0.5> started for
<T:\keep\testfi-les\pdf\pdf_XXL_l.pdf>
2008-10-14T15:55:34 [520] [R] Run ...
2008-10-14T15:55:34 [520] [R] Run <PDF> for document ...
2008-10-14T15:55:34 [520] [R] Run <PDFA1BChecks> for page <1> ...
2008-10-14T15:55:34 [520] [R] Run <FontCheck> for page <1> ...
2008-10-14T15:55:34 [520] [R] Run <FontEmbedCheck> for document ...
2008-10-14T15:55:34 [520] [R] ... <FontEmbedCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <FontRestrictionCheck> for document ...
2008-10-14T15:55:34 [520] [R] ... <FontRestrictionCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <SymbolicFontCheck> for document ...
2008-10-14T15:55:34 [520] [R] ... <SymbolicFontCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <FontCMapCheck> for document ...
2008-10-14T15:55:34 [520] [R] ... <FontCMapCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <FontSubsetCheck> for document ...
2008-10-14T15:55:34 [520] [R] ... <FontSubsetCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <FontGIDMapCheck> for document ...
2008-10-14T15:55:34 [520] [R] ... <FontGIDMapCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <Type0SystemInfoCheck> for document ...
2008-10-14T15:55:34 [520] [R] ... <Type0SystemInfoCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <FontCanEmbedCheck> for document ...
2008-10-14T15:55:34 [520] [R] ... <FontCanEmbedCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] ... <FontCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <WordCheck> for page <1> ...
2008-10-14T15:55:34 [520] [R] Run <WordEncodingMissingCheck> for page <1> ...
2008-10-14T15:55:34 [520] [R] ... <WordEncodingMissingCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] ... <WordCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <AnnotationCheck> for page <1> ...
2008-10-14T15:55:34 [520] [R] Run <AnnotationTypeCheck> for page <1> ...
2008-10-14T15:55:34 [520] [R] ... <AnnotationTypeCheck> done <Ok> - <0>
.
.
.
2008-10-14T15:55:34 [520] [R] ... <GraphicStateRenderingCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] ... <GraphicStateCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [R] Run <SecurityCheck> for document ...
2008-10-14T15:55:34 [520] [R] ... <SecurityCheck> done <Ok> - <0>
2008-10-14T15:55:34 [520] [E] ... <PDFA1BChecks> done <Error> - <2>
2008-10-14T15:55:34 [520] [R] ... done <Error> <2>
2008-10-14T15:55:34 [520] [R] ... done <2>
2008-10-14T15:55:35 [520] [R] PDF Checker beendet mit <2>
```

5 Configured Checks and Sections

configuration file

The checks are specified in the configuration files `pdfcheck.ini` and `pdfcheck_customer.cfg`. Partly, the checks are compiled to sections.

delivery

This chapter describes the sections and checks already enclosed in delivery.

Topic	Page
Profiles	31
Compiling Sections	32
Checks	33

Reference

For information about how to change the configuration, refer to [PDFCHECKER_TEC].

Hint

A single check or a single section of checks is specified with the `-n` parameter.

Profiles

The following sections are specified in the configuration files: profile

- `[PDFAChecks]` contains all checks relevant for the PDF/A standard level A and level B (configuration file `pdfcheck.ini`). level A and B
- `[PDFA1BChecks]` contains all checks relevant for the PDF/A standard level B (configuration file `pdfcheck.ini`). level B
- `[PDFA1AChecks]` contains all checks relevant for the PDF/A standard level A (configuration file `pdfcheck.ini`). level A
- `[PDFA1B-Metadata]` contains all checks relevant for the PDF/A standard level B except the checks for the metadata. Here, errors occur often and they can be switched off using this profile (configuration file `pdfcheck.ini`). level B without metadata
- `[PDFA1B-Colorspace]` contains all checks relevant for the PDF/A standard level B except the checks for the color spaces. Here, errors occur often and they can be switched off using this profile (configuration file `pdfcheck.ini`). level B without color space
- `[PDFA1B-Security]` contains all checks relevant for the PDF/A standard level B except the checks for the security settings. (configuration file `pdfcheck.ini`) level B without security
- `[PDFA1BPlusChecks]` contains all checks relevant for the PDF/A standard level B and the checks relevant for the reader requirements (configuration file `pdfcheck.ini`). level B and reader requirement
- `[PDFA1BStrict]` contains all checks relevant for the PDF/A standard level B (configuration file `pdfcheck.ini`). All differences are treated as errors. level B (strict)
- `[SEALChecks]` contains additional checks specified by SEAL Systems (configuration file `pdfcheck.ini`). SEAL Systems
- `[CustomerChecks]` contains the customer-specific checks (configuration file `pdfcheck_customer.cfg`). customer-specific
- `[PlusChecks]` contains all checks relevant for the reader requirements (configuration file `pdfcheck.ini`). reader requirement

Compiling Sections

object	The checks concerning some objects in PDF are compiled in further sections. These are listed here in alphabetical order.
annotation	• `[AnnotationCheck]` contains all checks concerning the annotations.
bookmark	• `[BookmarkCheck]` contains all checks concerning the bookmarks.
catalog dictionary	• `[CatalogDictionaryCheck]` contains all checks concerning the catalog dictionary.
color space	• `[ColorSpaceCheck]` contains all checks concerning the color spaces.
PDF file	• `[CommonCheck]` contains all checks, concerning the PDF file in general.
metadata	• [`ExtendedMetadataCheck`] contains additional checks concerning the metadata.
font	• `[FontCheck]` contains all checks concerning the fonts.
form	• `[FormCheck]` contains all checks concerning the forms.
graphics state	• `[GraphicStateCheck]` contains all checks concerning the graphics states.
image	• `[ImageCheck]` contains all checks concerning the images.
metadata	• `[MetadataCheck]` contains checks concerning the metadata.
page	• `[PageCheck]` contains all checks concerning the pages.
stream	• `[StreamCheck]` contains all checks concerning the streams.
metadata (strict)	• `[StrictExtendedMetadataCheck]` contains additional checks concerning the metadata. All differences are treated as errors.
font (strict)	• `[StrictFontCheck]` contains all checks concerning the fonts. All differences are treated as errors.
metadata (strict)	• `[StrictMetadataCheck]` contains checks concerning the metadata. All differences are treated as errors.
word	• `[WordCheck]` contains all checks concerning the words.

Checks

This section lists all checks specified in the configuration files in alphabetical order. For each check you will find the section containing the check and a short description about what is checked.

contents

`[AddActionCheck]` AddActionCheck

Section: `[CatalogDictionaryCheck]`

Description: `AddActionCheck` returns an error if the PDF file contains additional actions. An additional action is, for example, playing a sound file.

`[AlternateCSCheck]` AlternateCSCheck

Section: `[PlusChecks]`

Description: `AlternateCSCheck` returns an error if an alternative color space is specified for a color space. With an alternative color space, the uniqueness of the visual appearance is not guaranteed.

`[AnnotationActionCheck]` AnnotationActionCheck

Section: `[AnnotationCheck]`

Description: `AnnotationActionCheck` returns an error if an annotation contains an action that is prohibited in the PDF/A standard.

`[AnnotationAdditionalActionCheck]` AnnotationAdditionalActionCheck

Section: `[AnnotationCheck]`

Description: `AnnotationAdditionalActionCheck` returns an error if an annotation contains an additional action. An additional action is, for example, playing a sound file.

`[AnnotationAPEntryCheck]` AnnotationAPEntryCheck

Section: `[AnnotationCheck]`

Description: `AnnotationAPEntryCheck` returns an error if not only the normal appearance is specified for an annotation. Different appearance instructions can change the annotation's appearance depending of mouse movements or mouse clicks, for example.

`[AnnotationDeviceCSCheck]` AnnotationDeviceCSCheck

Section: `[AnnotationCheck]`

Description: `AnnotationDeviceCSCheck` returns an error if an annotation uses a color and no RGB color space is specified for the output.

To be continued

Checks, Continuation

AnnotationFlagCheck	[AnnotationFlagCheck] Section: [AnnotationCheck] Description: AnnotationFlagCheck returns an error if an annotation has a property that is not allowed in the PDF/A standard or if it does not have a property that is required in the PDF/A standard such as printing.
AnnotationHypertextCheck	[AnnotationHypertextCheck] Section: [PlusChecks] Description: AnnotationHypertextCheck returns an error if an annotation contains a hypertext action. Normally, hypertext actions refer to contents outside the PDF file and, therefore, are not allowed in the PDF/A standard.
AnnotationNamedCheck	[AnnotationNamedCheck] Section: [AnnotationCheck] Description: AnnotationNamedCheck returns an error if an annotation contains a prohibited named action. In the PDF/A standard, the NextPage, PrevPage, FirstPage and LastPage actions are allowed solely.
AnnotationTransparencyCheck	[AnnotationTransparencyCheck] Section: [AnnotationCheck] Description: AnnotationTransparencyCheck returns an error if an annotation contains transparency.
AnnotationTypeCheck	[AnnotationTypeCheck] Section: [AnnotationCheck] Description: AnnotationTypeCheck returns an error if the type of an annotation is not allowed in the PDF/A standard.
BalancedCheck	[BalancedCheck] Section: [CustomerChecks] Description: BalancedCheck returns a warning if the page tree of the PDF file is not balanced.
BookmarkActionCheck	[BookmarkActionCheck] Section: [BookmarkCheck] Description: BookmarkActionCheck returns an error if a bookmark contains an action that is prohibited in the PDF/A standard.

To be continued

Checks, Continuation

[BookmarkHypertextCheck] BookmarkHypertextCheck
Section: [PlusChecks]
Description: BookmarkHypertextCheck returns an error if an annotation contains a hypertext action. Normally, hypertext actions refer to contents outside the PDF file and, therefore, are not allowed in the PDF/A standard.

[BookmarkNamedCheck] BookmarkNamedCheck
Section: [BookmarkCheck]
Description: BookmarkNamedCheck returns an error if a bookmark contains a prohibited named action. In the PDF/A standard, the NextPage, PrevPage, FirstPage and LastPage actions are allowed solely.

[CatalogEFCheck] CatalogEFCheck
Section: [CatalogDictionaryCheck]
Description: CatalogEFCheck returns an error if the PDF file contains an embedded file. Via an embedded file, various file formats might be mixed in a PDF file.

[CatalogJavaScriptCheck] CatalogJavaScriptCheck
Section: [CatalogDictionaryCheck]
Description: CatalogJavaScriptCheck returns an error if a PDF file contains JavaScript. This is prohibited in the PDF/A standard.

[CompressionCheck] CompressionCheck
Section: [CommonCheck]
Description: CompressionCheck returns an error if the PDF file contains compressed objects. Compressed objects are not possible in PDF 1.4.

[DefaultMetadataCheck] DefaultMetadataCheck
Section: [MetadataCheck]
Description: DefaultMetadataCheck returns an error if the content of the default metadata in the info dictionary do not match the correspondent items in the XMP metadata. Default metadata are the Title, Author, Subject, Keywords, Creator, Producer, CreationDate and ModDate items in the info dictionary.

To be continued

Checks, Continuation

DeviceColorSpaceCheck

[DeviceColorSpaceCheck]

Section: [ColorSpaceCheck]

Description: DeviceColorSpaceCheck returns an error if a device-dependent RGB or CMYK color space is used but the correspondent output intent is not set correctly. If such a color profile is embedded, it is also checked if this has the version 2.x, if the number of color components specified in the color space match the number specified in the dictionary and if the color profile is correct, this means, if it is not defective. In the PDF/A standard, device-dependent color spaces are generally prohibited but allowed with the correspondent color profile for output.

ElementCheck

[ElementCheck]

Section: [PDFA1BChecks], [PDFA1BChecks-Colorspace], [PDFA1BChecks-Metadata], [PDFA1BChecks-Security]

Description: ElementCheck returns an error if a page contains an object that is prohibited in the PDF/A standard.

ExtendedElementCheck

[ExtendedElementCheck]

Section: [SEALChecks]

Description: ExtendedElementCheck returns an error if a page contains a PostScriptObject, Unknown, DeviceNColors, Group, XGroup, BeginGroup or EndGroup object. The GraphicState, Image, Container, XObject, Form, PostScript, Text, Content, Path, Clip, Font, ColorSpace, Place, SysFont, Pattern, Shading, BeginContainer, EndContainer, SoftMask, SysEncoding, Doc, Page, Thumb and Annotation objects are allowed. ExtendedElementCheck is stricter than ElementCheck.

ExtendedImageFilterCheck

[ExtendedImageFilterCheck]

Section: [CustomerImageChecks] in [CustomerChecks]

Description: ExtendedImageFilterCheck returns an error if an image does not use the FlateDecode, DCTDecode, CCITTFaxDecode compression mode or if it does not use compression.

ExtendedImageFilterCheck is stricter than ImageFilterCheck because here more compression modes are prohibited.

ExtendedInvisibleTextCheck

[ExtendedInvisibleTextCheck]

Section: [SEALChecks]

Description: ExtendedInvisibleTextCheck returns an error if a page contains invisible text, this means, if the rendering mode is set to invisible.

To be continued

Checks, Continuation

[ExtensionSchemaCheck] — ExtensionSchemaCheck

Section: [ExtendedMetadataCheck] in [MetadataCheck]

Description: ExtensionSchemaCheck returns a warning if no extension schema is specified for the metadata. A description must be specified for all schemas not defined in the XMP specification.

[ExtendedRequestedXMPCheck] — ExtendedRequestedXMPCheck

Section: [CustomerChecks]

Description: ExtendedRequestedXMPCheck returns an error if the XMP metadata do not contain the Author and CreationDate items.

[FontBBoxCheck] — FontBBoxCheck

Section: [FontCheck]

Description: FontBBoxCheck returns an error if the bounding box of a Type3 font is not correct.

[FontCanEmbedCheck] — FontCanEmbedCheck

Section: [FontCheck]

Description: FontCanEmbedCheck returns a warning if a font is found that can not be embedded.

[FontCMapCheck] — FontCMapCheck

Section: [FontCheck]

Description: FontCMapCheck returns a warning if the CMap of a Type0 font is not embedded or if the settings for the writing mode are inconsistent.

[FontEmbedCheck] — FontEmbedCheck

Section: [FontCheck]

Description: FontEmbedCheck returns an error if not all fonts are embedded. Only if all font data are embedded in the PDF file, a unique reproduction is guaranteed.

Caution: Restriction

A font can only be embedded if it is available on the local workstation. Type0 fonts cannot be embedded!

[FontEncodingCheck] — FontEncodingCheck

Section: [PDFA1AChecks]

Description: FontEncodingCheck returns an error if a font does not use a standard encoding. Standard encodings are MacRomanEncoding, MacExpertEncoding and WinAnsiEncoding.

To be continued

Checks, Continuation

FontGID-MapCheck	[FontGIDMapCheck] Section: [FontCheck] Description: FontGIDMapCheck returns an error if not all information that are required for the mapping are available for a font.
FontRestric-tionCheck	[FontRestrictionCheck] Section: [FontCheck] Description: FontRestrictionCheck returns an error if a font is protected against editing or generally protected.
FontSub-setCheck	[FontSubsetCheck] Section: [FontCheck] Description: FontSubsetCheck returns a warning if the CIDSet stream is not available for a Type0 font. The CIDSet stream identifies the character IDs that are available in the embedded font file. For Type1 fonts, it is checked if a character set stream exists that contains the character names of the font subset. Non-defined characters are not allowed here. In the stream, it is only analyzed if a character is defined.
FormOPICheck	[FormOPICheck] Section: [FormCheck] Description: FormOPICheck returns an error if a form contains an Open Prepress Interface. The Open Prepress Interface is used for the preview of high-resolution images. The appearance of the preview could differ from the original and is therefore prohibited in the PDF/A standard.
FormPost-scriptCheck	[FormPostscriptCheck] Section: [FormCheck] Description: FormPostscriptCheck returns an error if a page contains a PostScript object.
FormRefer-enceCheck	[FormReferenceCheck] Section: [FormCheck] Description: FormReferenceCheck returns an error if a form contains a reference to an external file where the appearance is specified.
FormTranspar-encyCheck	[FormTransparencyCheck] Section: [FormCheck] Description: FormTransparencyCheck returns an error if a form contains transparency.

To be continued

Checks, Continuation

[GraphicStateRenderingCheck] GraphicStateRenderingCheck
Section: [GraphicStateCheck]
Description: GraphicStateRenderingCheck returns an error if a graphics state contains a rendering method that is not allowed in the PDF/A standard.

[GraphicStateTransferFunctionCheck] GraphicStateTransferFunctionCheck
Section: [GraphicStateCheck]
Description: GraphicStateTransferFunctionCheck returns an error if a graphics state contains a transfer function. Transfer functions control the brightness of an image.

[GraphicStateTransferFunctionCheck1] GraphicStateTransferFunctionCheck1
Section: [GraphicStateCheck]
Description: GraphicStateTransferFunctionCheck1 returns an error if a graphics state contains a transfer function. Transfer functions control the brightness of an image.

[GraphicStateTransparencyCheck] GraphicStateTransparencyCheck
Section: [GraphicStateCheck]
Description: GraphicStateTransparencyCheck returns an error if a graphics state contains transparency.

[HeaderCheck] HeaderCheck
Section: [CommonCheck]
Description: HeaderCheck returns an error if the PDF file does not begin correctly.
%PDF-*version*%
%*nnnn*
with *n* as decimal value greater than 127.

[ICCCheck] ICCCheck
Section: [ColorSpaceCheck]
Description: ICCCheck returns an error if a color space uses an ICC profile that is not embedded.

[IDCheck] IDCheck
Section: [CommonCheck]
Description: IDCheck returns an error if the trailer of the PDF file does not contain an ID. With the ID, a PDF file can be identified unambiguously in automatic processes, for example, and you can find out if the PDF file has been changed.

To be continued

Checks, Continuation

ImageAlternateCheck	[ImageAlternateCheck] Section: [ImageCheck] Description: ImageAlternateCheck returns an error if an image contains alternative representations. Different appearance modes can change the image's appearance depending on which appearance mode is selected by the reader.
ImageCompressionCheck	[ImageCompressionCheck] Section: [CustomerImageChecks] in [CustomerChecks] Description: ImageCompressionCheck returns an error if an image using the DCTDecode compression is not baseline compressed, this means, if it does not use the BASELINE_DCT_HUFFMAN compression mode.
ImageFilterCheck	[ImageFilterCheck] Section: [ImageCheck] Description: ImageFilterCheck returns an error if an image uses a compression mode that is not allowed in the PDF/A standard.
ImageInterpolationCheck	[ImageInterpolationCheck] Section: [ImageCheck] Description: ImageInterpolationCheck returns an error if an image uses a device-dependent interpolation. If the resolution of an image is much smaller than the resolution of the output device, single pixels might be displayed as small squares where the color changes in an image. This effect is avoided by using an interpolation filter. The filter is applied to the image during run-time. It depends on the application and is not described in the PDF format specification. It also might be not supported for all output devices and image types.
ImageOCCheck	[ImageOCCheck] Section: [ImageCheck] Description: ImageOCCheck returns an error if an image with optional contents is found. Optional contents might modify the appearance of an image.
ImageOPICheck	[ImageOPICheck] Section: [ImageCheck] Description: ImageOPICheck returns an error if an image contains an Open Prepress Interface. The Open Prepress Interface is used for the preview of high-resolution images. The appearance of the preview could differ from the original and is therefore prohibited in the PDF/A standard.

To be continued

Checks, Continuation

`[ImageQualityCheck]` Section: `[SEALChecks]` Description: `ImageQualityCheck` returns a warning if the quality of a DCTDecode-compressed image is worse than 75%.	`ImageQuality-Check`
`[ImageRenderCheck]` Section: `[ImageCheck]` Description: `GraphicStateRenderingCheck` returns an error if an image contains a rendering method that is not allowed in the PDF/A standard.	`ImageRen-derCheck`
`[ImageResolutionCheck]` Section: `[SEALChecks]` Description: `ImageResolutionCheck` returns a warning if the resolution of an image is between 100 and 700 dpi in both directions. With a too low resolution, the quality of the image is bad and, with a too high resolution, the storage space is very high and the PDF file is unnecessary very large.	`ImageResolu-tionCheck`
`[ImageStmCheck]` Section: `[ImageCheck]` Description: `ImageStmCheck` returns an error if the image data are invalid. This means that the image is corrupt.	`ImageStmCheck`
`[InlineImageCheck]` Section: `[CustomerImageChecks]` in `[CustomerChecks]` Description: `InlineImageCheck` returns a warning if an image is an inline image, this means, the image is specified in the stream where it is also used. In contrast to „normal“ images, inline images are not self-contained objects in the PDF file.	`InlineIm-ageCheck`
`[LinearizedCheck]` Section: `[CustomerChecks]` Description: `LinearizedCheck` returns a warning if the PDF file is linearized.	`Linearized-Check`
`[MetadataUsedCheck]` Section: `[CatalogDictionaryCheck]` Description: `MetadataUsedCheck` returns an error if the PDF file does not contain XMP metadata.	`MetadataUsed-Check`

To be continued

Checks, Continuation

NeedAppFormFieldCheck

[NeedAppFormFieldCheck]
Section: [CatalogDictionaryCheck]
Description: NeedAppFormCheck returns an error if a NeedAppearance item exists in the AcroForm dictionary of a form. This item is prohibited in the PDF/A standard because it effects the appearance of the form field. Each form field should have an separate dictionary that specifies the appearance and that is assigned to the field data.

NodeCheck

[NodeCheck]
Section: [CustomerChecks]
Description: NodeCheck returns a warning if a node in the page tree contains more than 12 elements.

OpenActionCheck

[OpenActionCheck]
Section: [CatalogDictionaryCheck]
Description: OpenActionCheck returns an error if an action that is not allowed in the PDF/A standard is associated with the opening of the PDF file.

OptionalContentCheck

[OptionalContentCheck]
Section: [CatalogDictionaryCheck]
Description: OptionalContentCheck returns an error if the PDF file contains optional contents. Optional contents might modify the appearance of a PDF file.

PageAdditionalActionCheck

[PageAdditionalActionCheck]
Section: [PageCheck]
Description: PageAdditionalActionCheck returns an error if a page contains additional actions. An additional action is, for example, playing a sound file.

PageSizeCheck

[PageSizeCheck]
Section: [PlusChecks]
Description: PageSizeCheck returns an error if the height or width of the pages in the PDF file is outside of the implementation limits 1 to 200 inch.

PageTransparencyCheck

[PageTransparencyCheck]
Section: [PageCheck]
Description: PageTransparencyCheck returns an error if a page contains transparency.

To be continued

Checks, Continuation

[PageUserUnitCheck] Section: [PlusChecks] Description: PageUserUnitCheck returns an error if a UserUnit item exists in the dictionary of a page. This item is available as of PDF version 1.6 and expands the implementation limits of the page size which are fixed in older PDF versions.	PageUserUnitCheck
[RepairCheck] Section: [CommonCheck] Description: RepairCheck returns an error if the PDF file has been repaired during initialization. This means that the PDF file's syntax is not correct.	RepairCheck
[RequestedInfoDictCheck] Section: [CustomerChecks] Description: RequestedInfoDictCheck returns an error if the info dictionary does not contain the Author and CreationDate items.	RequestedInfoDictCheck
[RequestedXMPCheck] Section: [MetadataCheck] Description: RequestedXMPCheck returns an error if the XMP metadata do not contain the part and conformance items.	RequestedXMPCheck
[SecurityCheck] Section: [PDFA1BChecks], [PDFA1BChecks-Colorspace], [PDFA1BChecks-Metadata] Description: SecurityCheck returns an error if the PDF file is encrypted.	SecurityCheck
[SignatureCheck] Section: [SEALChecks] Description: SignatureCheck returns a warning if the PDF file contains a signature.	SignatureCheck
[StreamExtRefCheck] Section: [StreamCheck] Description: StreamExtRefCheck returns an error if a stream contains a reference to an external file.	StreamExtRefCheck
[StreamFilterCheck] Section: [StreamCheck] Description: StreamFilterCheck returns an error if a stream uses a compression mode that is not allowed in the PDF/A standard.	StreamFilterCheck

To be continued

Checks, Continuation

StrictExtensionSchemaCheck	[StrictExtensionSchemaCheck] Section: [StrictExtendedMetadataCheck] in [StrictMetadataCheck] Description: StrictExtensionSchemaCheck returns an error if no extension schema is specified for the metadata. A description must be specified for all schemas not defined in the XMP specification.
StrictXMPCheck	[StrictXMPCheck] Section: [StrictExtendedMetadataCheck] in [StrictMetadataCheck] Description: StrictXMPCheck returns an error if the syntax of the XMP metadata do not comply with the XMP specification.
StrictXMPNamespaceCheck	[StrictXMPNamespaceCheck] Section: [StrictExtendedMetadataCheck] in [StrictMetadataCheck] Description: StrictXMPNamespaceCheck returns an error if the namespace in the XMP metadata does not comply to the XMP specification.
StrictExtensionSchemaCheck	[StrictExtensionSchemaCheck] Section: [StrictExtendedMetadataCheck] in [StrictMetadataCheck] Description: StrictExtensionSchemaCheck returns an error if no extension schema is specified for the metadata. A description must be specified for all schemas not defined in the XMP specification.
StrictFontSubsetCheck	[StrictFontSubsetCheck] Section: [StrictFontCheck] Description: StrictFontSubsetCheck returns an error if the CIDSet stream is not available for a Type0 font. The CIDSet stream identifies the character IDs that are available in the embedded font file. For Type1 fonts, it is checked if a character set stream exists that contains the character names of the font subset. Non-defined characters are not allowed here. In the stream, it is only analyzed if a character is defined.
SymbolicFontCheck	[SymbolicFontCheck] Section: [FontCheck] Description: SymbolicFontCheck returns an error if a symbolic font uses an encoding. Specifying an encoding is prohibited for symbolic fonts due to symbolic fonts normally contain characters that are not contained in any encoding.

To be continued

Checks, Continuation

[TaggedCheck] — TaggedCheck

Section: [PDFA1AChecks]

Description: TaggedCheck returns a warning if the PDF file does not contain tags. Tags structure the elements in a PDF file. For example, a text section and the correspondent footnote is marked in order that a Braille device is able to read the footnote in the correct context.

[TrailerCheck] — TrailerCheck

Section: [CommonCheck]

Description: TrailerCheck returns an error if the PDF file does not end correctly with %%EOF.

[Type0SystemInfoCheck] — Type0SystemInfoCheck

Section: [FontCheck]

Description: Type0SystemInfoCheck returns an error if the font information is inconsistent for Type0 fonts. In detail, it is checked if the Registry and Ordering items in the CMap match the Registry and Ordering items in the CIDFont. If these items differ, the appearance is different depending on which item is read by the reader.

[TypeCheck] — TypeCheck

Section: [ColorSpaceCheck]

Description: TypeCheck returns an error if both a device-dependent RGB and a CMYK color space exist. Only one color space is allowed.

[VersionCheck] — VersionCheck

Section: [CommonCheck]

Description: VersionCheck returns a warning if the PDF version of a PDF file is not 1.3 or 1.4. The PDF/A standard generally prohibits all features introduced as of PDF version 1.4.

[WidgetAnnotationActionCheck] — WidgetAnnotationActionCheck

Section: [AnnotationCheck]

Description: WidgetAnnotationActionCheck returns an error if a widget annotation contains an additional action. This is prohibited in the PDF/A standard.

To be continued

Checks, Continuation

WidgetAnnotationAPStreamCheck	[WidgetAnnotationAPStreamCheck] Section: [AnnotationCheck] Description: WidgetAnnotationAPStreamCheck returns an error if the normal appearance is not specified for a widget annotation. Different appearance instructions can change the annotation's appearance.
WordEncodingMissingCheck	[WordEncodingMissingCheck] Section: [WordCheck] Description: WordEncodingMissingCheck returns an error if the encoding is missing for a word.
WordUnmappedCharCheck	[WordUnmappedCharCheck] Section: [CustomerChecks] Description: WordUnmappedCharCheck returns a warning if a word contains a character that is not included in the standard encoding. A font can specify its own encoding. For this, the standard name does not have to be used. This characters can be displayed but you can not search for them.
XFAFormFieldCheck	[XFAFormFieldCheck] Section: [CatalogDictionaryCheck] Description: XFAFormFieldCheck returns an error if interactive form fields using the XML form architecture exist in the PDF file. These are prohibited in the PDF/A standard.
XMPCheck	[XMPCheck] Section: [ExtendedMetadataCheck] in [MetadataCheck] Description: XMPCheck returns a warning if the syntax of the XMP metadata do not comply with the XMP specification.
XMPCorrigendumCheck	[XMPCorrigendumCheck] Section: [MetadataCheck] Description: XMPCorrigendumCheck returns a warning if the pdfaid metadata do not comply to the format described in the Corrigendum of the PDF/A standard. This check depends on RequestedXMPCheck.
XMPFilterCheck	[XMPFilterCheck] Section: [MetadataCheck] Description: XMPFilterCheck returns an error if the XMP metadata are compressed, this means, if they can not be read in clear text.

To be continued

Checks, Continuation

[XMPNamespaceCheck] XMP-NamespaceCheck

Section: [ExtendedMetadataCheck] in [MetadataCheck]

Description: XMPNamespaceCheck returns a warning if the namespace in the XMP metadata does not comply to the XMP specification.

Bibliography

[ISO19005-1]	ISO/DIS 19005-1 Document management - Electronic document file format for long-term preservation, Part 1: Use of PDF 1.4 (PDF/A-1) (01.10.2005)
[PDF_REF]	PDF Reference, Version 1.4
[PDFCHECKER_TEC]	PDF Checker, System Description, SEAL Systems

Terminology

The following section explains the most important terms that are used in this documentation. Terms marked by → refer to other terms within this section.

Action	Element in PDF; an action, for example, playing a sound file, assigned to an annotation for example
Annotation	Element in PDF; associates an object, for example, a comment or a sound file, with a page of a PDF file.
Bookmark	Element in PDF; facilitates the navigation in the PDF file; bookmarks are constructed as tree structure.
Catalog dictionary	Element in PDF; →Dictionary that exists once per PDF file and contains document-wide information such as the basic language, settings how the document is displayed and the start of the →page tree
Check	Rule that →PDF Checker tests with the →PDF file
CMap	Mapping of character codes and characters in fonts
Color profile	Data set describing a color space
Color space	Element in PDF; color space describing the colors available in the PDF file; examples of color spaces are DeviceGray, DeviceCMYK or ICCBased
Compression	Element in PDF; specifies the method how the data of a →stream are to be interpreted; examples of compression modes are ASCIIHexDecode, LZWDecode or FlateDecode.
Configuration file	File in that the →checks processed by →PDF Checker with the →PDF file are configured
Content stream	Element in PDF; →stream describing the content of a page in the PDF file
Debug file	Optional file into that →PDF Checker writes details of the program run
Dictionary	Element in PDF; describes single objects in a PDF file, for example, font dictionary, →catalog dictionary or annotation dictionary; contains key-value-pairs providing information about the correspondent object
External object	→XObject
Filter	→Compression
Form XObject	→XObject compiling several graphical objects (images, text, vector elements)
Graphics state	Element in PDF; contains information about a graphical element in the PDF file
Group XObject	→XObject compiling several →form Xobjects
Header	Start of the →PDF file
Image	Element in PDF; graphical object, for example, a photo or a raster graphic
Info dictionary	Element in PDF; →dictionary containing metadata about the PDF file, for example, the author or the creation date
Language file	File containing the language-dependent texts of →PDF Checker
Level A	Includes all rules of the →PDF/A standard
Level B	Includes all →PDF/A standard rules concerning the presentation
Log file	File into that →PDF Checker writes the results of the →checks
Metadata	Global information about the →PDF file, for example, the author or the creation date; contained in the →info dictionary and in the →XMP metadata
Output intent	Color profile for device-dependent colors

Page tree	Element in PDF; tree structure via that single →pages of the PDF file are accessed
PDF/A standard	ISO standard (ISO/DIS 19005-1) specifying the requirements for PDF files suitable for long-term preservation
PDF Checker	Command line program by SEAL Systems for testing →PDF files against specified →checks
PDF file	File in PDF which is tested by →PDF Checker according to the specified →checks
PDF Longlife	Graphical user interface for PDF Checker
PDF Longlife Suite	Complete package with PDF Checker, PDF Longlife and the DPF processes for checking on a server
PostScript XObject	→XObject containing PostScript code
Priority	Importance of a →check in PDF Checker
Stream	Element in PDF; contains the bytes to be interpreted, for example, of a graphical object; a stream can be read incrementally.
Trailer	End of the →PDF file
XMP metadata	Element in PDF; contains metadata in XML about the PDF file
XObject	Element in PDF; graphical object containing a self-contained →stream independent of the →content stream

Abbreviations

ASCII	American Standard Code for Information Interchange
CCITT	Comité Consultatif International Téléphonique et Télégraphique
CID	Character ID
CMYK	Cyan Magenta Yellow Key
DCT	Discrete Cosine Transform
DPI	Dots Per Inch
GID	Glyph ID
ICC	International Color Consortium
ISO	International Organization for Standardization
JPEG	Joint Photograhic Experts Group
LZW	Lempel-Ziv-Welch
OPI	Open Prepress Interface
PDF	Adobe Portable Document Format
PID	Process ID
PS	Postscript
RGB	Red Green Blue
TIFF	Tagged Image File Format
URI	Uniform Resource Identifier
XML	Extensible Metadata Language
XMP	Extensible Metadata Platform

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